

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	$\int \sec^2(ax + b) dx$ is equal to:	A. $\tan^{\sup>2\sup>}(ax + b)$ B. $\frac{1}{a} \tan^{\sup>2\sup>}(ax + b)$ C. $\frac{1}{a} \tan(ax + b)$ D. $\tan(ax + b)$
3	The line $y = mx + 1$ is tangent to the parabola $y^2 = 4x$ if	A. $m=1$ B. $m=2$ C. $m=3$ D. $m=4$
4	The st. lines whose direction cosines satisfy $al + bm + cn = 0$, $fmn + gnl + hlm = 0$ are perpendicular if	
5	The line through the intersection of the lines $x + 2y + 3 = 0$: $3x + 4y + 7 = 0$ and making equal intercepts on the axes is	A. $x + y + 1 = 0$ B. $x + y - 2 = 0$ C. $x + y + 2 = 0$ D. $2x + y + 2 = 0$
6	the curve of the parabola $y^2 = -4ax$ is symmetric with respect to	A. x-axis B. y-axis C. Both x and y-axis D. None of these
7	A polynomial of arbitrary degree	A. $f(x) = 0$ B. $f(x) = x$ C. $f(x) = a$ D. $f(x) = ax + b, a \neq 0$
8	Question Image	
9	Question Image	
10	Write the first four terms of the sequence if $a_n = (-1)^n n^2$	A. -1, 4, -9, 16 B. 1, -4, 9, 16 C. 1, 4, 9, 16 D. None of these
11	Question Image	A. $a \sin(ax + b) + c$ B. $-a \sin(ax + b) + c$
12	The coefficient of the second term of $(a+b)^4$ is	A. 1 B. 9 C. 3 D. 5
13	an $-an-1, \forall n \in \mathbb{N} \wedge n > 1$ in an A.P is called	A. Common difference B. nth term C. Common ratio D. None of these
14	The condition for polynomial equation $ax^2 + bx + c = 0$ to be quadratic is	A. $a > 0$ B. $a < 0$ C. $a \neq 0$ D. $a \neq 0, b \neq 0$
15	Question Image	D. none of these
16	Question Image	
17	An infinite sequence has no	A. nth term B. Last term C. Sum D. None of these
18	If n is any positive integer then $2^n > 2(n + 1)$ is true for all	
19	If S_n is a definite number as $n \rightarrow \infty$, then the geometric series is	A. Convergent B. Divergent C. Oscillatory D. None of these
20	If n is any positive integer then $n! < 2n-1$ for	

